



THUNDER LASER TECH CO.,LTD

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PARAMETERS FOR 130WAT LASER TUBE

suggested paramters for some materials.(the parameters might be a bit different according to different machines

CUTTING

Laser head type: standard laser head

| materials | thickness | speed | max power | power in corners |
|---------------------|-----------|-------|-----------|------------------|
| mdf | 2.5 | 35 | 60 | 60 |
| mdf | 3.8 | 15 | 60 | 60 |
| mdf | 10.0 | 2.5 | 60 | 60 |
| acr | 2.8 | 32 | 60 | 60 |
| acr | 5.0 | 15 | 60 | 60 |
| acr | 10.0 | 4 | 60 | 60 |
| acr | 20.0 | 1.5 | 60 | 60 |
| foam | 17.0 | 11 | 60 | 60 |
| plywood | 2.0 | 140 | 40 | 40 |
| plywood | 4.5 | 40 | 60 | 60 |
| plywood | 7.5 | 13 | 60 | 60 |
| plywood | 10.0 | 11 | 60 | 60 |
| cardboard | 6.0 | 22 | 50 | 50 |
| non-dust cloth | 0.4 | 250 | 60 | 60 |
| leather | 1.5 | 80 | 60 | 60 |
| rubber | 4.5 | 9 | 60 | 60 |
| double color boards | 1.5 | 50 | 60 | 60 |
| bamboo | 7.0 | 12 | 60 | 60 |
| paper | 0.1 | 300 | 18 | 18 |
| Kraft paper | 0.5 | 300 | 40 | 40 |
| cherry wood | 15.0 | 3 | 60 | 60 |
| plastics | / | / | / | / |
| glass | / | / | / | / |
| granite | / | / | / | / |
| marble | / | / | / | / |
| ceramic cup | / | / | / | / |
| rostone | / | / | / | / |
| anodized aluminum | / | / | / | / |
| grip tape | / | / | / | / |

ENGRAVING

Laser head type: standard laser head

| materials | thickness | speed | max power | min power | scan gap |
|-----------|-----------|-------|-----------|-----------|----------|
|-----------|-----------|-------|-----------|-----------|----------|

| | | | | | |
|---------------------|---|-----|----|----|------|
| MDF | / | 500 | 20 | / | 0.08 |
| acr | / | 500 | 20 | / | 0.08 |
| bamboo | / | 500 | 20 | / | 0.08 |
| plywood | / | 500 | 20 | / | 0.08 |
| cardboard | / | 500 | 20 | / | 0.08 |
| paper | / | 500 | 14 | / | 0.08 |
| painted aluminum | / | 500 | 30 | / | 0.08 |
| cherry wood | / | 500 | 25 | / | 0.08 |
| anodized aluminum | / | 500 | 30 | / | 0.08 |
| plastaic | / | 500 | 20 | / | 0.08 |
| glass | / | 500 | 25 | / | 0.08 |
| Kraft paper | / | 500 | 20 | / | 0.08 |
| leather | / | 500 | 20 | / | 0.08 |
| cloth | / | 500 | 15 | / | 0.08 |
| rubber | / | 500 | 40 | 15 | 0.06 |
| metal | / | 500 | / | / | 0.08 |
| double color boards | / | 500 | 18 | / | 0.08 |
| granite | / | 500 | 25 | / | 0.08 |
| marble | / | 500 | 25 | / | 0.08 |
| ceramic cup | / | 500 | 25 | / | 0.08 |
| rostone | / | 500 | 25 | / | 0.08 |
| grip tape | / | 500 | 20 | / | 0.08 |
| foam | / | / | / | / | / |

CUTTING

Laser head type: 4 inches laser head

| materials | thickness | speed | max power | power in corners | |
|-------------------|-----------|-------|-----------|------------------|--|
| mdf | 10.0 | 3 | 60 | 60 | |
| acr | 10.0 | 5 | 60 | 60 | |
| acr | 20.0 | 1.5 | 60 | 60 | |
| foam | 17.0 | 12 | 60 | 60 | |
| plywood | 10.0 | 12 | 60 | 60 | |
| plywood | 13.0 | 5 | 60 | 60 | |
| plywood | 15.0 | 5 | 80 | 80 | |
| plywood | 18.0 | 4 | 80 | 80 | |
| rubber | 4.0 | 10 | 60 | 60 | |
| cherry wood | 12.0 | 8 | 60 | 60 | |
| cherry wood | 15.0 | 5 | 60 | 60 | |
| peach wood | 20.0 | 4 | 60 | 60 | |
| bamboo | 7.0 | 15 | 60 | 60 | |
| paper | 0.1 | 300 | 20 | 20 | |
| Kraft paper | 0.5 | 300 | 45 | 45 | |
| plastics | / | / | / | / | |
| granite | / | / | / | / | |
| marble | / | / | / | / | |
| ceramic cup | / | / | / | / | |
| rostone | / | / | / | / | |
| anodized aluminum | / | / | / | / | |

| | | | | | |
|-----------|---|---|---|---|--|
| grip tape | / | / | / | / | |
|-----------|---|---|---|---|--|

ENGRAVING

Laser head type: high resolution laser head

| materials | thickness | speed | max power | min power | scan gap |
|---------------------|-----------|-------|-----------|-----------|----------|
| MDF | / | 400 | 10 | / | 0.06 |
| acr | / | 300 | 11 | / | 0.04 |
| bamboo | / | 500 | 10 | / | 0.06 |
| plywood | / | 500 | 10 | / | 0.06 |
| cardboard | / | 500 | 10 | / | 0.05 |
| painted aluminum | / | 500 | 15 | / | 0.06 |
| cherry wood | / | 500 | 10 | / | 0.06 |
| anodized aluminum | / | 500 | 10 | / | 0.05 |
| plastaic | / | 500 | 18 | / | 0.06 |
| glass | / | 500 | 25 | / | 0.06 |
| Kraft paper | / | 500 | 20 | / | 0.06 |
| leather | / | 500 | 13 | / | 0.06 |
| cloth | / | 500 | 15 | / | 0.06 |
| rubber | / | 450 | 35 | 15 | 0.06 |
| metal | / | / | / | / | / |
| double color boards | / | 500 | 11 | / | 0.06 |
| granite | / | 500 | 25 | / | 0.06 |
| marble | / | 500 | 25 | / | 0.06 |
| ceramic cup | / | 500 | 25 | / | 0.06 |
| rostone | / | 500 | 25 | / | 0.06 |
| grip tape | / | 500 | 18 | / | 0.06 |
| foam | / | / | / | / | / |

Cutting and Engraving a variety of plastaic

| Material | Abbreviation | Trade name |
|---|--------------|--------------------------|
| Polyamide | PA | Kevlar®, Nylon® |
| Polyoxymethylene | POM | Delrin® |
| Polyester | PES | Thermolite®, Polarguard® |
| Polyethylene terephthalate | PET | Mylar® |
| Polyimide | PI | Kapton® |
| Polystyrene | PS | |
| Polymethyl-methacrylate | PMMA | Plexiglas® |
| Polycarbonate | PC | Lexan®, Makrolon® |
| Polypropylene | PP | |
| Acrylonitrile butadiene styrene co-polymerisate | ABS | |

| image invert | image dither |
|--------------|--------------|
| no | 0.25 |
| yes | 0.2 |
| | |
| no | 0.25 |
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| | |
| yes | 0.25 |
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| | |
| yes | 0.25 |
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